

CLAIMS

Please amend the presently pending claims as follows:

1-18. Cancelled.

19. (Currently Amended) Method for reception of radio data transmitted between at least two base stations and one mobile terminal wherein the method comprises, in said mobile terminal, the following successive steps:

- a first step of receiving data transmitted by a multicarrier data transmission signal, the multicarrier data transmission signal being formed from a sequence in time of symbols comprising firstly information data elements, and secondly reference elements called pilots,
said pilots being distributed within the information data elements according to a predetermined pattern, and having a value at emission known by the mobile terminal,
at least two of the base stations using distinct pilot patterns such that at any given moment and at any given frequency, the mobile terminal can only receive one pilot from the base stations;
- a second step of identifying the base station, which emitted the data, ~~from using a received control information transmission signal comprising an identifier of, which allows notably the mobile terminal, upon data reception, to identify~~ the base station that emitted the data; and
- a third step of determining the pilot pattern used by the identified base station, after identification in the second step, using the identifier of the identified base station that was transported by the control information transmission signal to find the pilot pattern associated to said identifier.

20. (Previously Presented) Method for reception of data according to claim 19, wherein, when the pilot pattern was generated using a generation function for which one parameter is an identifier of the associated base station, the step of determining implements the generation function as a function of the identified base station.

21. (Currently Amended) Method for reception of data according to claim 19 and further comprising a step ~~for~~ of extracting the pilots from the multicarrier data transmission signal, and a step ~~for~~ of estimating a transfer function of a transmission channel associated with the multicarrier data transmission signal.

22. (Previously Presented) Method for reception of data according to claim 19, wherein the multicarrier data transmission signal is of an OFDM type.

23. (Previously Presented) Method for reception of data according to claim 19, wherein each of the base stations uses a specific pilot pattern.

24. (Previously Presented) Method for reception of data according to claim 19, wherein said method is implemented in a cellular radio communication network, and the base stations are base stations of the network.

25. (Currently Amended) A cellular ~~Cellular~~ radio communication system comprising:

at least two base stations and one mobile terminal, implementing a multicarrier data transmission signal, the multicarrier data transmission signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots,
said pilots being distributed within the information data elements according to a predetermined pattern, and having a value at emission known by the mobile terminal;

wherein at least two of the base stations use distinct pilot patterns, such that only one pilot can be received by the mobile terminal from the base stations, at a given time and at a given frequency; and

wherein said mobile terminal comprises:

first means ~~of for~~ receiving data transmitted by the multicarrier data transmission signal;

second means ~~of for~~ identifying the base station that emitted the data, ~~using from a~~ a received control information transmission signal comprising an identifier of, ~~which allows notably the mobile terminal to identify the base station that emitted the data when the mobile terminal receives the data~~; and

third means ~~of for~~ determining the pilot pattern used by the identified base station, after identification by the second means, using the identifier of the identified base station that was transported by the control information transmission signal to find the pilot pattern associated to said identifier.

26. (Currently Amended) A mobile ~~Mobile~~ terminal in a cellular radio communication system, comprising:

means ~~of for~~ receiving radio data transmitted by at least two base stations, in the form of a multicarrier data transmission signal, the multicarrier data transmission signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots, said pilots being distributed within the information data elements according to a predetermined pattern, and having a value at emission known by the mobile terminal, at least two of the base stations using distinct pilot patterns, such that only one pilot can be received by the mobile terminal from the base stations, at a given time and at a given frequency;

~~means of receiving data transmitted by the multicarrier data transmission signal;~~

means ~~of for~~ identifying the base station that emitted the data, ~~using from a~~ received

control information transmission signal comprising an identifier of, ~~which allows notably the mobile terminal to identify the base station that emitted the data when the mobile terminal receives the data;~~ and

means ~~of~~ for determining the pilot pattern used by the identified base station, after identification by the means for identifying, using the identifier of the identified base station that was transported by the control information transmission signal to find the pilot pattern associated to said identifier.

27. (Currently Amended) A cellular radio communication mobile comprising:

a mobile terminal adapted to receive radio data transmitted by at least two base stations, in the form of a multicarrier data transmission signal, the multicarrier data transmission signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots,

said pilots being distributed within the information data elements according to a predetermined pattern, and having a value at emission known by the mobile terminal, at least two of the base stations using distinct pilot patterns, such that only one pilot can be received by the mobile terminal from the base stations, at a given time and at a given frequency,

wherein the mobile terminal is ~~adapted~~ configured to identify the base station that emitted the data, ~~using~~ from a received control information transmission signal comprising an identifier of, ~~which allows the mobile terminal to identify the base station that emitted the data when the mobile terminal receives the data,~~ and to determine the pilot pattern used by the identified base station, after identification, using the identifier of the identified base station that was transported by the control information transmission signal to find the pilot pattern associated to said identifier.